

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

1. (Currently Amended) A method for producing a porous sintered body of a calcium phosphate-based ceramic having a porosity of 80 % or more, wherein said method comprises: (1) preparing a slurry comprising a calcium phosphate-based ceramic powder, a water-soluble high molecular compound and a nonionic surface active agent; (2) stirring said slurry vigorously to froth said slurry; (3) solidifying the frothed slurry into a gel; (4) degreasing a green block having a predetermined shape formed from said gel to remove said water-soluble high molecular compound and said nonionic surface active agent from the gel by heating at 300 to 900°C; and (5) sintering said green block after degreasing, wherein said nonionic surface active agent is *N,N*-dimethyldodecylamine oxide.

2. (Original) The method for producing a porous sintered body according to claim 1, wherein said calcium phosphate-based ceramic powder is a secondary particle having an average particle diameter of 0.5 to 80  $\mu\text{m}$  prepared from a primary particle having an average particle diameter of 100 nm or less.

3. (Original) The method for producing a porous sintered body according to claim 1, wherein said water-soluble high molecular compound is a cellulose derivative.

4. (Canceled)

5. (Original) The method for producing a porous sintered body according to claim 1, wherein 1 to 10 part by weight of said water-soluble high molecular compound and 1 to 10 part

by weight of said nonionic surface active agent are used with 100 parts by weight of said calcium phosphate-based ceramic powder.

6. (Original) The method for producing a porous sintered body according to claim 1, wherein a weight ratio of the total of said calcium phosphate-based ceramic powder, said water-soluble high molecular compound and said nonionic surface active agent is 20 to 50 weight % based on 100 weight % of said slurry.

7. (Original) The method for producing a porous sintered body according to claim 1, wherein said slurry is stirred under a stirring condition of 50 W/L or more to froth said slurry.

8. (Canceled)

9. (Original) The method for producing a porous sintered body according to claim 1, wherein said nonionic surface active agent is free of a metal ion and a sulfate group.

10. (Original) The method for producing a porous sintered body according to claim 1, wherein said slurry is stirred while passing a gas through said slurry to froth said slurry.

11. (Original) The method for producing a porous sintered body according to claim 1, wherein said calcium phosphate-based ceramic is hydroxyapatite.

12. (Previously Presented) A method for producing a porous sintered body of a calcium phosphate-based ceramic having a porosity of 80 % or more, wherein said method comprises: (1) preparing a slurry comprising a calcium phosphate-based ceramic powder, a water-soluble high molecular compound and a nonionic surface active agent; (2) stirring said slurry vigorously to froth said slurry; (3) solidifying the frothed slurry into a gel; and (4) drying and sintering said gel, and wherein said nonionic surface active agent is *N,N*-dimethyldodecylamine oxide.

13. (Previously Presented) The method for producing a porous sintered body according to claim 1, wherein the gel is dried prior to degreasing.